

WAX FOR MODELLING.

Sir.—Will any of your numerous readers be kind enough to inform me, through the medium of *THE BUILDER*, the best method of preparing a wax for modelling?

I am, Sir, yours, &c.

L.

Sir.—Will you oblige a constant reader and friend, by requesting some of your numerous and talented subscribers to favour me with a design for a small cottage in the *Serius* style.

It is to stand by a lake in a pleasure-ground; it is not to be inhabited, but used as a summer-house. To be two stories high (ground and first floor); the staircase to be on the outside; a fire-place in each room, to be deep for dog irons; the chimneys and fire-places to project behind as much as possible, so as not to detract too much from the size of the rooms, which may be about 12 feet square. A balcony round the house (don't care about the back); would be preferred that the balcony should be supported on pillars, so as to form a colonnade, and also requiring less strength than if supported on cantilevers. The expense not to exceed 100*l*. By inserting this you will oblige,

Yours truly,

THOMAS GEORGE.

Hendon, September 25, 1843.

SCOTCH PATENTS.

(From the Repertory of Patent Intentions.)

John Barnes, of Church, Lancashire, manufacturing chemist, and John Mercer, of Oakenshaw, in the said county, calico-printer, for certain improvements in the manufacture of articles used in printing and dyeing cotton, silk, woollen, and other fabrics.—Sealed 19th August.

John Burns Smith, late of Salford, but now of Stockport, cotton-spinner, for certain improvements in machinery for preparing, carding, roving, and spinning cotton and other fibrous substances.—Sealed 21st August.

James Overend, of Liverpool, for improvements in printing fabrics with metallic matters, and in finishing silk and other fabrics, being a foreign communication.—Sealed 22nd August.

FRENCH PATENTS.

FOR FIVE YEARS.

Arnoult, of Paris, for improved trouser-straps.

Astier, of Nantes, for a new mode of calcining sulphate of lime.

Auxenfans, of Paris, for a new inkstand.

Baucher de Moutuel, of Paris, for an improved coining press.

Belicard, of Montmartre, for an improved apparatus applicable to privy vaults.

Berge, of Paris, for an improved comb.

Bertaux de Challevois, of Paris, for an improved paste for cleansing teeth.

Bigot, of Paris, for an improved cock.

Bleuvas, of Paris, for improved lamps.

Breton and Rivette, of Paris, for a method of extracting gluten from flour.

Brouard, of Havre, for improved tents.

Canteloube, of Marmaier of Aurillac, for an improved primer.

Carraine, of Salernics, for a machine for cutting panes of glass.

Chambardel, of Poitiers, for a distilling apparatus for separating alcohol from wine.

De Chavagnac, of Paris, for improved waggons for railroads.

Claudot, of Verdun, for a mode of turning into use the gases which escape from coal fires.

Clayette, of Paris, for an improved syringe.

Cognier, of Paris, for a solar lamp.

Damy, of Berry St. Christophe, for the application of ventilation to the English system of grinding flour.

Dangé (Mademoiselle) for a method of imparting to paper and other fabrics the property of colouring hair.

Daudé, of Paris, for improved buckles and hooks and eyes.

Debry, of Brest, for improved trusses.

Deannette, of Herouville, and Bardett, for an improved stopper.

Deslandes, of Paris, for an improved mode of setting metallic eyelet-holes.

Digné, of Paris, for an improved hat.

Dubus, of Paris, for an expressive organ.

Dujet, of Dinan, for an improved wheel for spinning flax.

Fournier, of Aigre, for an improved distilling apparatus.

Galesloot, of Liege, for an improved brick machine.

Garbais, of Paris, for pearl buttons.

Garnot, of Paris, for an improved candlestick.

Gautier, of Valenciennes, for an improved mode of distilling coal-gas.

Girardot, of Pougères, for an improved mode of carbonizing peat.

Gossin, of Lisieux, for an improved kitchen stove.

Guerin and Co., of Paris, for an improved bucket, to be used in case of fire.

Guerin, Bouchon, and Co., for an improved mill.

Guindorf, of Paris, for a machine for making metallic eyelet-holes.

Guyot, of Paris, for improvements in lamps.

Guyot, of Paris, for the application to coaches and vessels, of a system of illumination founded on liquid hydrogen.

Harding-Cocker, of Lille, for improved combs and cards used in the preparing of wool and other fibrous materials.

Hayem Brothers, of Paris, for an improved stock for gentlemen.

Herbé, of Paris, for an improved canvas.

Hétru, of Paris, for Mauritan lozenges, for clearing the voice.

Miscellaneous.

MANUFACTURE OF MOSAIC AT ROME.—It is well known that mosaic work consists of variously-shaped pieces of coloured glass enamel, and when these pieces are cemented together, they form those regular and other beautiful figures which constitute tessellated pavements. The principal manufactory of mosaic is at Rome, and belongs to his Holiness the Pope. The enamel, consisting of glass mixed with metallic colouring matter, is heated for eight days in a glass-house, each colour in a separate pot. The melted enamel is taken out with an iron spoon, and poured on polished marble placed horizontally, and another flat marble slab is laid upon the surface, so that the enamel cools into the form of a round cake, of the thickness of three-tenths of an inch. In order to divide the cake into smaller pieces, it is placed on a sharp steel anvil, called tagliuolo, which has the edge uppermost, and a stroke of an edged hammer is given on the upper surface of the cake, which is thus divided into long parallelograms, or prisms, whose bases are three-tenths of an inch square. These parallelograms are again divided across their length by the tagliuolo and hammer into pieces of the length of eight-tenths of an inch, to be used in the mosaic pictures. Sometimes the cakes are made larger and thicker. For smaller pictures the enamel whilst fused is drawn into long parallelograms, or quadrangular sticks, and these are divided across by the tagliuolo and hammer, or by a file; sometimes also these pieces are divided by a saw without teeth, consisting of a blade of copper and emery, and are polished on a horizontal wheel of lead with emery. Gilded mosaic is formed by applying the gold-leaf on the hot surface of a brown enamel; immediately after the enamel is taken from the furnace, the whole is put into the furnace again for a short time, and when it is taken out, the gold is firmly fixed on the surface. In the gilded enamel used in mosaic at Rome there is a "thin, transparent coat of glass over the gold."

NEWGATE STREET.—It is not generally known that some very good buildings are being erected behind Christ's Hospital, in connection with the new street from the Bank to the Post-office.

VAUXHALL BRIDGE.—That deserted locality, the Westminster approach to Vauxhall bridge, shows promise of life at last. A railled inclosure for a square has been laid out, and building is actually going on in the neighbourhood.

THE NEW LINCOLN'S-INN HALL.—This very extensive and commodious edifice has so rapidly advanced since the commencement of the year as to insure its being roofed by the early part of the ensuing spring. In the southern section is the banquetting-room, of sufficient dimensions to dine upwards of 400 persons. In the northern is the library, destined to contain the finest collection of books on British and foreign jurisprudence to be met with in Europe. Superb windows of painted glass will adorn these two principal apartments, which, together with the numerous heraldic emblematizations of distinguished alliances will produce an effect perfectly in keeping with all around it. The offices and other minor rooms are admirably planned, and the spacious and well-arranged kitchen will be the first of its kind in the metropolis.

A GIGANTIC SCHEME.—Instead of a superficial burying-place, Mr. Wilson proposed a pyramid cemetery:—"A metropolitan cemetery on a scale commensurate with the necessities of the largest cities in the world, embracing prospectively the demands of centuries, sufficiently capacious to receive five millions of the dead, where they may repose perfect security, without interfering with the comfort, the health, the business, or the pursuits of the living." This stupendous structure would occupy eighteen acres, but was intended to afford accommodation equal to one thousand acres of church-yard. The great pyramid of Gizah would be no longer one of the wonders of the world, as Mr. Wilson's would far surpass its magnitude. The design of this Babylonian work covered a base as large as the area of Russell-square, and towered twice as high as St. Paul's cross: for cyclopean flights of stairs ascending from the pavement to the pinnacle. The whole mass was to be faced with square blocks of granite, and surmounted by a plain characteristic obelisk, having a circular stone staircase, and terminating in an astronomical observatory. The inclosure surrounding the pyramid would contain several acres beyond its base, which might be tastefully laid out for the reception of cenotaphs and monuments. Next there were to be within the walls a small plain chapel and a register office; also four neat dwellings for the keeper, the clerk, the sexton, and the superintendent. There were to be four terrace-walks along the four walls, each angle crowned with a watch-tower. The approach would be through a lofty Egyptian portal. The estimate of the expense was two millions and a-half; a startling sum in the days when the cost of the London and Birmingham Railway was unknown; but assuming the annual number of interments to be 30,000, and the accommodation for each to be 5*l*, the income of the pyramid would be 150,000*l*. or fifteen millions in one hundred years!—thus saving not less than 12,500,000*l*. of the public money in the short space of a century—and what signifies a century in the progress of a work designed for eternal duration, or for a period as long as the earth shall endure!—*Westminster Review*.

TERMINUS OF THE BRISTOL AND EXETER RAILWAY.—The contract for the erection of the requisite buildings at the terminus of the railway at Exeter has been taken by Messrs. Hooper, and the works will forthwith be commenced, and we have heard are to be finished in six months.—*Exeter Flying Post*.

HUNGERFORD SUSPENSION BRIDGE.—We have received several communications respecting this undertaking, and, as a general answer, may state that the very slow progress which has appeared to take place in the construction of the piers (as explained by the engineer, I. K. Brunel, Esq., in his report to the proprietors, at the half-yearly meeting of the company), and the circumstance of the south pier being so far behind the north in its erection, arose from a bed of gravel existing on the spot selected for the foundation, of such extreme hardness, that it resisted the driving the piles to sufficient depth, and prevented the cofferdams from being water-tight. As this cause is now no longer in operation, the pier being carried up to high-water mark, it is to be hoped we shall now see the works proceed with that spirit which has hitherto marked every undertaking placed under the management of Mr. Brunel. We are informed that in about three months the whole will be ready to receive the chains and platform, nearly the whole of which is delivered and ready for raising, and it is to be hoped that this apparently interminable work will be open to the public early in the ensuing year.—*Mining Journal*.

SUSPENSION BRIDGES.—(From a Correspondent.)—Having in previous numbers noticed various plans for the construction of suspension bridges on principles which each designer considers to combine the most scientific development with perfect economy, as Motley's, Dredge's, &c., I hand you the following slight description of the plan of Mr. J. H. Clive, of Bath, which he affirms, and I believe to be, the most eligible mode yet adopted, both for security and economy. For a bridge of 240 feet span, the platform is divided into twenty-four parts, of ten feet each, supported by twenty-four rods on each side, braced by ten upright connecting-rods. For the purpose of economising the masonry work, the towers are made tapering towards the top, which is very narrow, but which gives equal strength with square buildings; the chains pass through these towers in three divisions, four at one-third the height above the platform, four at two-thirds, and the remaining four at the top. This arrangement Mr. Clive considers the true system of economically constructing suspension bridges, as by proportioning the weight of the rods to their number, and the weight they have to bear, bridges may be erected with mathematical correctness, and at far less expense, with equal security, than on any other plan hitherto adopted.—*Mining Journal*.